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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/989,897	11/19/2001	William P. Bunton	20206-137 (P01-3699US)	1340

7590 10/22/2004  
HEWLETT-PACKARD COMPANY Attn: Bill Streeter  
INTELLECTUAL PROPERTY ADMINISTRATION  
P.O. BOX 272400  
FORT COLLINS, CO 80527-2400

EXAMINER
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NGUYEN, CHAU M

ART UNIT	PAPER NUMBER
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2633

DATE MAILED: 10/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

UK

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/989,897	BUNTON, WILLIAM P.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Chau M Nguyen	2633	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 November 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 5, 9, 13 and 14 is/are rejected.
- 7) ☐ Claim(s) 2-4, 6-8, 10-12 and 15-19 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>100704</u> .  | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to under 37 CFR 1.83(a).

Regarding to figure 8, as described in Specification, para. [0059], multiplexer (upper left, labeled with 128) should be labeled to 130.

Correction is required. No new matter should be entered.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 5, 9, 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cheng et al. (Hereinafter "Cheng") (U.S. Pat. No. 6,151,336).

As claims 1, 5 and 9, Cheng discloses a computer network device and method of aligning a plurality of transmission lanes with a plurality of reception lanes in a data transmission system (Abstract and col. 1, lines 48-52), comprising:

unit 200-A (detailed in fig. 2) for transmitting a plurality of synchronization signal J (control symbols) (col. 3, lines 24-26 and col. 7, line 66) and channel ID (lane identifiers) (col. 7, lines 65-67) on a plurality of sets of the transmission lanes (F1, F2, ...);

time-division multiplexers (230) for time-division multiplexing the transmission

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lanes (F1, F2,..., FN, fig. 2) within each set of transmission lanes to provide a plurality of time-division multiplexed signals (col. 6, lines 19-24);

wave-division multiplexer (300) wave-division multiplexing the plurality of time-division multiplexed signals to provide a wave-division multiplexed signal (col. 6, lines 24-29);

transmission link (400, fig. 1) for transmitting the wave-division multiplexed signal across a data link (col. 6, lines 31-35);

demultiplexer (500, figs. 1, 3) for demultiplexing the wave division multiplexed signal to reconstruct the time-division multiplexed signals (col. 7, lines 25-32);

time-division demultiplexer (610) for demultiplexing the time-division multiplexed signals onto a plurality of sets of reception lanes (col. 7, lines 34-40);

a control module (660) for:

monitoring one of the reception lanes in each set of reception lanes for receipt of a lane identifier;

upon receipt of a lane identifier, comparing the received lane identifier with the identity of the monitored reception lane (col. 7, line 59 – col. 8, line 8);

Cheng does not clearly teach about rotating a lane assignment within the set of reception lanes containing the monitored reception lane if the received lane identifier does not match an identity of the monitored reception lane. However, the rotation step, for rotating a lane assignment within the set of reception lanes, is just only switching a received lane to the right lane (matching ID). In case of the channel ID is not match (Cheng, col. 7, line 63 – col. 8, line 1), then the demultiplexing process skips a channel a single time, wherein, the ID will be checked and compared again until the channel ID is

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match (col. 8, lines 2-8). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to perform the skipping a single time (rotating) a lane assignment within the set of reception lanes in order to lead the received lane to another reception lane wherein the ID channel is match. One would have motivated for skipping or rotating a lane within the set of reception lanes in order for reducing the processing time at the demultiplexer, in turns, increasing the communication speed.

As claim 13, Cheng discloses the plurality of time-division multiplexers in use receive data that is byte streamed (col. 5, lines 62-64) and control and channel ID (identifier symbols) that are transmitted together (col. 7, lines 20-24).

As claim 14, Cheng shows the plurality of time-division multiplexes to conduct time-division multiplexing at a bit level (col. 6, lines 18-24).

#### ***Allowable Subject Matter***

4. Claims 2-4, 6-8, 10-12 and 15-19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Ishikawa (U.S. Pat. No. 6,219,357 B1) is cited to show channel multiplex demultiplex method and channel multiplex demultiplex unit.

Ishioka et al. (U.S. Pat. No. 6,266,325 B1) is cited to show method and controlling path audit in switches.

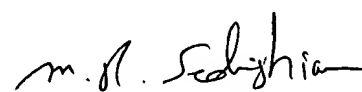
Yoshida et al. (U.S. Pat. No. 6,590,866 B2) is cited to show cell flowing ratio controlling method and cell switching system using the same.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chau M Nguyen whose telephone number is 571-272-3030. The examiner can normally be reached on Mon-Fri from 8:00 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on 571-272-3022. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

C.M.N.  
Oct. 13, 2004



**M. R. SEDIGHIAN**  
**PRIMARY EXAMINER**